Claim 6 (original): The system as defined in claim 5, wherein the first and second momentum devices form a scissored pair.

Claim 7 (previously presented): The system as defined in claim 1, wherein the one or more momentum devices includes first, second, and third momentum devices.

Claim 8 (original): The system as defined in claim 7, wherein the first, second, and third momentum devices are mounted on the rotational assembly equiangularly located about the axis of rotation.

Claim 9 (original): The system as defined in claim 1, wherein the support member comprises a vehicle.

Claim 10 (original): The system as defined in claim 9, wherein the vehicle comprises a spacecraft.

Claim 11 (original): The system as defined in claim 1, wherein the rotational assembly comprises an instrument.

Claim 12 (original): The system as defined in claim 1 further comprising a controller for controlling at least one of speed and orientation of ~~the~~ each momentum device so as to control the momentum vector.

RPS

Claim 13 (currently amended): A spacecraft system having dynamic unbalance compensation, said system comprising:

a spacecraft;

a rotational assembly mounted on the spacecraft and rotatable about an axis of rotation relative to the spacecraft; and

one or more momentum devices mounted on the rotational assembly, each momentum device generating a momentum vector component perpendicular to the axis of rotation,

Claim 21 (original): The system as defined in claim 13, wherein the rotational assembly comprises an instrument.

RPS

Claim 22 (original): The system as defined in claim 13 further comprising a controller for controlling at least one of speed and orientation of ~~the~~ each momentum device so as to control the momentum vector.

Claim 23 (currently amended): In a system having a rotational assembly mounted on a vehicle, and one or more momentum devices rotationally mounted on the rotational assembly, a method of balancing a dynamic unbalanced rotating assembly on a the vehicle, said method comprising the steps of:

rotating the rotational assembly about an axis of rotation relative to the vehicle; and

rotating each momentum device to thereby apply momentum in a vector perpendicular to the axis of rotation to generate (i) a compensation torque during rotation of the rotational assembly so as to compensate for dynamic unbalance of the rotational assembly, (ii) a first component of the momentum vector perpendicular to the axis of rotation, and (iii) a second component of the momentum vector parallel to the axis of rotation.

Claim 24 (canceled).

Claim 25 (previously presented): The method as defined in claim 23, wherein each momentum device comprises a momentum wheel.

Claim 26 (canceled).

Claim 27 (previously presented): The method as defined in claim 23, wherein the step of rotating each momentum device further includes rotating a first momentum device and a second momentum device.